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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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Index No. 04- CIV. 4051

eScholar LLC, :

Plaintiff, :

-against- :

Otis Educational Systems, Inc. :

:

Defendant. :

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OTIS EDUCATIONAL SYSTEMS, INC.'S RULE 56.1 STATEMENT OF UNCONTESTED FACTS

Defendant, Otis Educational Systems, Inc. ("Defendant" or "Otis"), for its Statement of Uncontested Material Facts in support of its Motion for Final Summary Judgment, pursuant to Rule 56.1 of the Local Rules for the Southern District of New York, states as follows:

The K-12 Data Warehousing Industry

1. A K-12 (i.e., kindergarten through twelfth grade) data warehouse is a relational database that holds K-12 data obtained from a variety of sources within a district or state. The K-12 warehouse is used to store data and for analysis and reporting purposes. A K-12 database stores a wide range of information such as: student data; grades; attendance; test scores; discipline information and much more. This data usually comes from a number of different existing systems within a school district or state (called "SIS" or student information systems), that must be "cleansed" and integrated before the data can be loaded into the warehouse and used

for reporting purposes. (Garten[1], pp. 8-11; Hubel[2], pp. 144-145; see also eScholar's website marketing materials[3]; Kimball Report[4], pp. 14-15; Garten Report[5], pp. 1-4).

2. Otis and eScholar are both companies that develop, market and sell reporting and warehousing type products and services to the K-12 education market. (Complaint[6], ¶7; Hadaway[7], p. 9).

3. eScholar's product offering is called the "eScholar Complete Data Warehouse." (Complaint, ¶12). The eScholar Complete Data Warehouse includes: a data model with indexes; data loading templates; security management system; over 200 individual data classification integration and loading programs; data validation logic; lookup tables for data transformation and standardization; extract, transform and load software ("ETL"); administrator documentation; and database documentation. (Bay[8], pp. 41-45; see also eScholar's website marketing materials).

4. Otis' product offering is called AssessMart. AssessMart includes, among other components, a data model, reports and load plans. (Hadaway, p. 9).

5. Both eScholar's and Otis' respective product offerings include data models. (See ¶¶ 3-4, above).

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[1] "Garten" refers to the deposition of Charles Garten, Otis' K-12 industry expert. A copy of referenced portions of Mr. Garten's deposition transcript is attached to the Declaration of Tamara Carmichael ("Carmichael Dec.") as Exhibit 7.

[2] "Hubel" refers to the deposition of Martin Hubel, eScholar's expert. A copy of referenced portions of Mr. Hubel's deposition transcript is at Carmichael Dec., Exh. 8.

[3] eScholar's website marketing materials were an exhibit to eScholar's 30(b)(6) deposition, and are attached to Carmichael Dec., Exh. 17, and can also be found at www.escholar.com/products.html.

[4] A copy of Otis' dimensional data modeling expert, Dr. Ralph Kimball's Report is attached to Carmichael Dec. at Exh. 4.

[5] A copy of Charles Garten, Otis' K-12 industry expert's Report is attached to Carmichael Dec. at Exh. 3.

[6] The Complaint is at Carmichael Dec., Exh. 1.

[7] "Hadaway" refers to the deposition of Mike Hadaway, Otis' marketing and sales director. (Hadaway, p. 8). A copy of referenced portions of Mr. Hadaway's deposition transcript is at Carmichael Dec., Exh. 9.

[8] "Bay" refers to the deposition of Shawn Bay, eScholar's CEO. A copy of referenced portions of Mr. Bay's deposition transcript is at Carmichael Dec., Exh. 10.

6. A data model is an abstraction or representation of the data in a given environment. It is a collection and subsequent verification and communication method for fully documenting the data requirements used in the creation of accurate, effective, and efficient physical databases. The data model consists of entities, attributes, and relationships. (See p. 399 of Treatise, Carmichael Dec., Exh. 26; Kimball[9], p. 41; Hubel, p. 56; Newcom, Vol. 1, p. 6).

7. eScholar alleges in its Complaint that eScholar has copyright protection in its data models and that Otis' data models infringed eScholar's copyrights in four ways, namely, that Otis copied eScholar's: (1) technique of including district as part of a multipart or composite key, thereby enabling storage of multiple district's data on a single database (Complaint, ¶¶ 48-59); (2) method of recording "slowly changing dimensions" (Complaint, ¶¶ 60-69); (3) idea and technique of storing disparate data (assessment data) into a single table (Complaint ¶¶ 70-73); and (4) overall structure, selection, and organization of elements of the K-12 data. (Complaint, ¶¶ 46-47).

8. Before filing suit, eScholar filed six (6) form TX copyright applications seeking to register "computer program/data model." (See Copyright Registrations[10]). After a telephonic discussion between eScholar and the Copyright Examiner, "data model" was crossed out by the Examiner on each application and, on or about May 12, 2004, six registrations were issued, one for each of the different versions of eScholar's "computer program." (See Copyright Registrations ; Boehme, pp. 21-25).

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[9] "Kimball" refers to the deposition of Dr. Ralph Kimball, Otis' dimensional data modeling expert. A copy of referenced portions of Dr. Kimball's deposition transcript is attached to Carmichael Dec. at Exh. 11.

[10] eScholar's copyright registrations are attached to Carmichael Dec. at Exh. 18. These registrations were originally filed as attachments to the Declaration of Paul McMenamin, which is also included in Exh. 18. The Copyright Registrations, with corresponding deposit material submitted to the Copyright Office, were attached as Exhibit F to eScholar's 30(b)(6) deposition transcripts and verified at those depositions.

9. eScholar did not deposit DDL, source code or object code for any of its copyright applications/registrations at issue in this lawsuit. eScholar deposited only the data models themselves, which, as described above, are visual depictions that indicate the structure and organization of tables and columns in a database or warehouse. (See Copyright Registrations; Hubel, p. 56; Boehme[11], p. 34).

Dimensional modeling technique for creation of data models and corresponding DDL

10. A data warehouse, irrespective of the industry, is created by designers who are trained in normalized or dimensional modeling disciplines. (Kimball, p. 168; Hubel, p. 20).

11. Data warehouses can be designed utilizing normalized (also called entity relationship or "E/R") or dimensional modeling techniques. (Hubel, pp. 20, 56-57; O'Connor[12], pp. 17-18).

12. Dimensional data modeling is a method of compiling large amounts of data, also called facts or dimensions, and organizing that data in the database so that users can obtain insights (i.e., run reports) from it. (O'Connor, pp. 28-30; Hubel, p. 20; see also Dimensional Modeling Treatises[13]).

13. Otis' data model designers, including Greg Newcom and J.P. O'Connor, are trained in dimensional design techniques. (Newcom[14], Vol. 2, pp. 12, 132; O'Connor, pp. 15-19).

14. Shawn Bay of eScholar, who designed eScholar's data model and database used for the K-12 industry, has been trained, mostly through on-the-job training, in dimensional design techniques. (Bay, pp. 49-60).

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[11] "Boehme" refers to the deposition of Wolf Boehme, eScholar's President. A copy of referenced portions of Mr. Boeheme's deposition transcript is at Carmichael Dec. at Exh. 12.
[12] "O'Connor" refers to the deposition of J.P. O'Connor, one of Otis' data modelers. A copy of referenced portions of Mr. O'Connor deposition transcript is at Carmichael Dec. at Exh. 13.
[13] Excerpts from Dimensional Modeling treatises are attached as Exh. 26 to Carmichael Dec.).
[14] "Newcom" refers to the deposition of Greg Newcom, Otis' Chief Architect. A copy of referenced portions of Mr. Newcom deposition transcript is at Carmichael Dec. at Exh. 14.

15. Dimensional data modeling is the appropriate and preferred method when designing a K-12 data model given the reporting and analysis needs of schools and school districts. (Hubel, pp. 166-167).

16. When designing structure and organization of a database, including a K-12 database, a designer uses off-the-shelf tools such as ERwin or PowerDesigner. (Kimball, p. 43-54). Otis uses ERwin for its AssessMart data model, while eScholar uses PowerDesigner. (Hubel, p. 109; Hubel Report[15], p. 7; Newcom, Vol. 1, p. 43; Colvin[16], pp. 81, 109).

17. The designer will input into ERwin or PowerDesigner information and instructions on how data is to be organized in a database. (Oman[17], Vol. 1, p. 56-57). ERwin and PowerDesigner then create either or both of: (a) the data model; and/or (b) DDL. (Kimball, pp. 43-54).

18. A data model, as described above in paragraph 6, is the tables, and the specifications that accurately describes those tables' structure, that is the basis for a physical implementation of a data warehouse. (Kimball, p. 41; Hubel, p. 56).

19. DDL is a formal, exact computer language specification that is the foundation for the creation of the tables in the system and the foundation for the display on the screen here as well. The true content of a database resides in the DDL. (Kimball pp. 43-45).

20. In this case, DDL would be the equivalent of source code because DDL contains a series of statements and instructions that can identify portions of a computer program in language understandable by humans. (Bay, pp. 297-98; Boehme, p. 51; Newcom, Vol. 1, pp. 14, 16, Vol. 2, pp. 93-95; Colvin, pp. 47-52; Kimball, pp. 43-49).

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[15] A copy of eScholar's expert, Martin Hubel's Report is attached to Carmichael Dec. at Exh. 8.
[16] "Colvin" refers to the deposition of Stuart Colvin, eScholar's Chief Technical Officer. A copy of referenced portions of Mr. Colvin's deposition transcript is at Carmichael Dec. at Exh. 15.
[17] "Oman" refers to the deposition of Ralph Oman, Otis' copyright expert and former Register of Copyrights. A copy of referenced portions of Mr. Oman's deposition transcript is at Carmichael Dec. at Exh. 16.

21. Data models do not include everything that is included in DDL and can vary from the DDL. (Kimball, pp. 43-49).

22. A database cannot be created from a data model, but only from DDL. (Kimball, pp. 43-49).

23. Tables in a data model include certain entities and attributes which relate to or describe what and how data will be stored in the database. (Hubel, p. 56).

24. A "field" is a factual item reflected in the data model which refers to a column in a database. (Hubel Report, p. 8; Kimball Report, p. 8).

25. A "key" in the data model or in the DDL is a field that helps to identify and correlate data in the database. (Hubel Report, p. 8).

26. A "primary key" is in the data model or DDL is the column or columns in a database that uniquely identify a record in the database. (Hubel, p. 53; Kimball Report, p. 6-8; and Kimball Reply Report[18], p. 2; Kimball, p. 33).

27. "Multipart or composite keys" in the data model or DDL are primary keys made up of two or more fields. (Kimball Report, p. 9; Hubel, pp. 104-105; Bay, pp. 76-77).

28. A "foreign key" is one or more fields that refer to a primary key in another table, so that the content of a foreign key is guaranteed to be a legitimate member of the primary key in the other table. (Kimball, p. 33; Kimball Report, p. 6; Kimball Reply Report, p. 2; Hubel, p. 54).

Basis for factual similarities of data included in and design elements of eScholar's and Otis' K-12 data models

29. Schools, districts and states are required to maintain student information and to report regarding performance under federal and state laws, including No Child Left Behind, as

[18] A copy of Dr. Ralph Kimball's Reply Report is attached to Carmichael Dec. at Exh. 4.

well as general business practices. (Garten, pp. 30-31, 117-165; Garten Report, pp. 1-5; Garten Reply Report, p. 1).

30. When designing a dimensional model for a K-12 database, designers must take into account the business and legal needs of the K-12 customers. (Garten, pp. 27-29, 117-165; Garten Report, pp. 1-5; Bay, pp. 284-287; Hubel, p. 203; Newcom, Vol 2, p. 98, 106-109, 117-118). The data stored in the database, such as "student," "district," "PSAT," "infractions," etc., is included in fields in the data model. (Kimball Report, pp. 3-5).

31. The National Center for Education Statistics ("NCES") is a non-profit organization which promulgates a Data Handbook that provides guidance on consistency in data definitions and maintenance of K-12 data, so that such data can be accurately aggregated and reported. The NCES online Handbook provides a searchable web tool that includes standard terms (data fields), definitions and classification codes for K-12 data in a SIS or data warehouse, and related data models. (See NCES Handbook and website materials, Exhs. 20 and 21 to Carmichael Dec. and at http://nces.ed.gov/; see also Kimball Report, pp. 14-15; Kimball Reply Report, p. 5; Garten Report p. 5; Newcom, Vol. 1, p. 58).

32. The School's Interoperability Framework ("SIF") is a non-profit organization that brings together vendors, government agencies, state departments of education, and other industry leaders to develop a specification that ensures primary and secondary (K-12) instructional and administrative software applications can share information seamlessly. SIF is not a product but an industry-supported technical blueprint for primary and secondary (K-12) software that will enable diverse applications to interact and share data now and in the future. There are products, including K-12 data warehouses, that are developed based upon the SIF initiative. (See SIF website materials, Exh. 23 to Carmichael Dec. and at http://www.sifinfo.org/index.asp). Shawn

Bay of eScholar is on the board of directors of SIF. (Bay, p. 387; see also Kimball Report, pp. 14-15; Kimball Reply Report, p. 5; Garten Report p. 5).

33. A significant amount, if not all, of the data fields in both eScholar's and Otis' data models include text (naming conventions) and data recommended by the NCES handbook and based upon SIF standards. (Kimball Report, pp. 14-15; Kimball Reply Report, p. 5; Garten Report, p. 5; Newcom, Vol. 2, p. 98).

34. Mr. Bay acknowledges that the SIF guidelines were a factor in what information he chose to include in eScholar's data models, and that the models generally follow SIF guidelines. (Bay, p. 388; O'Connor, pp. 65-66). Mr. Bay also may have relied, like Otis, upon NCES standards in developing eScholar's data models. (Bay, pp. 388-389; Newcom, Vol. 2, pp. 107-108; O'Connor, pp. 66-67).

35. eScholar's data models are also influenced by external factors: dimensional modeling techniques, state and federal regulations and organizational requirements. (Bay, pp. 284, 287, 388-89; Boehme, pp. 43-44).

36. eScholar itself admits that the rules and regulations mandated by the K-12 educational industry strongly influenced its creation of tables, columns, and relationships that appear in its data model. (Bay, pp. 388-89; Boehme, p. 44).

37. The K-12 data fields and topics in eScholar's and Otis' data models must be included because schools, districts or states must record it for reporting purposes under No Child Left Behind Act and/or general practice by school districts and states. (Garten, pp. 9-10, 26-33, 117-165; Garten Report, pp. 1-3). Even eScholar's expert admits that a lot of the information included in both eScholar's and Otis' data models "is driven by requirements of [K-12] customers." (Hubel, p. 203). eScholar's CTO acknowledges that when eScholar adds additional

domains to its data models, the decision to add those domains would be based upon customer requirements. (Colvin, pp. 32-33).

38. Any similarities between eScholar's models and Otis' models are based upon the undisputed fact that both are dimensional models in nature and prepare for the same industry. Two designers with the same information and experience would create identical or similar models. (Kimball, pp. 27-32). eScholar's expert also concedes that some of the similarities between eScholar's and Otis' data models might be the result of the fact that they are both dimensional models in like industries with similar business or legal needs. (Hubel, p. 223). Mr. Hubel also acknowledges that the content, or data, in certain areas is the same between Otis' and eScholar's data models at least some of which is the result of the fact that they are both dimensional models in the K-12 industry with like business needs or legislative requirements. (Hubel, pp. 223-224).

Differences between eScholar's and Otis' data models

39. Otis' data models have far fewer fields than eScholar's data models. (Hubel, p. 225; Kimball Report, p. 14).

40. eScholar has many more attributes in its student dimension table than Otis does, which is a difference between the two data models. (Hubel, p. 202; Kimball Report, pp. 12-14).

41. As between eScholar's and Otis' models, there are differences in the table names, column names and the information which is stored in the tables. (Hubel, pp. 204-205; Kimball Report pp. 10, 12-14).

42. There are differences between what columns of information are included in Otis' design and eScholar's design in tables other than the student table. (Hubel, pp. 205-206; Kimball Report, pp. 12-14).

43. eScholar's table names and column names for cohort information are different from Otis' table names for that information. (Hubel, p. 207; Kimball Report, pp. 12-14). Otis also has one additional column in its student group table. (Hubel, p. 207).

44. Mr. Hubel agrees that the semantics between Otis' data models and eScholar's data models are not identical, but he thinks they are "quite similar." However, even he acknowledges that there are some differences in semantics between the data models. (Hubel, p. 223).

45. Mr. Hubel never examined any content for either eScholar or Otis' data models. (Hubel, p. 222).

46. Mr. Hubel did not address the differences in semantics between the eScholar models and Otis models in his report because "[his] purpose was to find similarities not differences." (Hubel, p. 224).

47. Although Mr. Hubel was not asked to, and did not, perform an analysis of the differences between all of eScholar's models and all of Otis' models (Hubel, pp. 224, 226), he did notice that there were many more fields in eScholar's student table than in any version of the Otis data model. (Hubel, p. 225).

48. Mr. Hubel did a table by table comparison of each fact and dimension table to see if there were corresponding numbers between eScholar's and Otis' models, and found that there were different numbers of tables in each version of Otis' models. (Hubel, p. 185).

49. Mr. Hubel also did a comparison of tables, fields and keys to see if those were the same between eScholar and Otis, and he found that "[I]n fact there are differences between many of the tables in Otis and eScholar." (Hubel, pp. 185-186).

50. The same query could not run on databases created by both Otis' data models versus eScholar's data bases. (Kimball Report, pp. 13-14). In order to make Otis' product compatible with third party reporting applications which, according to Mr. Hubel, are compatible with eScholar's product, one would have to change the names on Otis' data model tables, change the names on the columns, and change the "join logic and any route by's or order by's or any other things that appeal." (Hubel, pp. 187-192).

51. eScholar and Otis store assessment data in different ways in their respective products since eScholar uses at least thirty boxes for assessment data, whereas Otis uses only six. (Newcom, Vol. 1, p. 108, Vol 2, p. 89; Kimball Report, pp. 12-15; see also eScholar and Otis data models, attached at Carmichael Dec., Exhs. 18 and 19, respectively).

eScholar did not invent dimensional modeling techniques

52. Dimensional modeling is a design technique that was not invented by eScholar. (See Treatises at Carmichael Dec., Exh. 26; Kimball, pp. 30-31, 85, 95-96; Kimball Report, pp. 7-8).

Use of "District" as a part of a multipart or composite key

53. Mr. Hubel admits that, while eScholar uses "district" as a multipart or composite primary key "in all of their tables" (Hubel, pp. 112-115, 119, 169), Otis' data model does not use its district key as a multipart or composite primary key. (Hubel, pp. 111-112, 119-120, 123, 172; Kimball Report, pp. 10-11; Kimball Reply Report, pp. 3-4).

54. Dr. Kimball agrees with Mr. Hubel's assessment set forth in ¶49, above, and testified that "eScholar uses the district key as part of a multipart primary key. Therefore, in order to guarantee that a record is unique in any one of these tables where it's used as a multipart primary key, the district key component must be included. By contrast, the Otis models do not

use district key as part of a multipart or composite primary key, and [so] the use of the district key [in the Otis model] is not needed to deliver unique values from any of those tables." (Kimball, p. 57; Kimball Report, pp. 10-11; Kimball Reply Report, p. 3).

55. As a result of the fact that Otis does not use its district key as a multipart or composite primary key, Otis' "district_key does not help Otis uniquely identify a row in a table as defined in the data models." (Hubel, p. 124; Kimball Report, pp. 10-11).

56. In eScholar's data models, the use of district_key does allow one to uniquely identify a row in a table, at least in theory. (Hubel, pp. 124-125). eScholar uses district as part of a multipart or composite primary key. Id.

57. eScholar's use of district as a multipart/composite key is a command or method used to control or operate input of K-12 data into eScholar's computer program, allowing its K-12 customers to retrieve information from the school's or district's database. (Bay, pp. 227-228).

58. Dr. Ralph Kimball, Otis' expert, explained that determining whether a key is a multipart or composite primary key through viewing a data model is a simple matter. When a data modeler uses the tool ERwin to develop the data model, then all multipart or composite primary keys are shown above the horizontal line in each table. (Kimball, p. 62; Kimball Report, p. 10). eScholar's expert, Martin Hubel, also testified that, when using ERwin, the multipart or composite key in a dimension table is shown above the line in that table. (Hubel, pp. 109-110).

59. Mr. Hubel did not answer a deposition question as to how PowerDesigner denotes a primary key, but stated that "[he'll] know it when [he] see[s] it." (Hubel, p. 109). However, after he reviewed eScholar's data model, he testified that PowerDesigner underscores and sometimes puts a "P-I" to designate primary keys. (Hubel, p. 109-110).

Slowly Changing Dimensions

60. Another "invention" Plaintiff claims to have copyrighted is what Plaintiff claims is a unique method of storing and updating student demographic data which changes over a period of time (for example, a child's year in school). (Complaint, ¶63).

61. Both eScholar's modeling expert, Mr. Hubel, and Otis' modeling expert, Dr. Kimball, testified that slowly changing dimensions are standard in the data warehousing industry to update changing data over time. (Hubel, p. 40; Kimball, pp. 81-82; Kimball Report, p. 8). Mr. Hubel acknowledged that slowly changing dimensions are a technique used in many industries. (Hubel, p. 133). Mr. Hubel has not heard of any dimensional modeler, other than Shawn Bay, use terminology different from Ralph Kimball's terms of Type 1, Type 2, and Type 3 slowly changing dimensions. (Hubel, p. 182). Mr. Hubel, however, has heard of people talk of "transactions." (Hubel, p. 182).

62. Mr. Hubel testified "I don't think Shawn [Bay] invented [Type 2 slowly changing dimensions] at all. I think that there are many modelers out who could design slowly changing dimensions." (Hubel, p. 40).

63. Use of slowly changing dimensions is a standard design technique. Mr. Hubel testified that, although he did not believe there was a business or legal requirement, he "would think there is a real desire to [include in a K-12 data model a method for recording slowly changing dimensions in a transactional manner] as a good thing." (Hubel, pp. 127-128).

64. Dr. Kimball has written about the three different types of slowly changing dimensions in his book on data warehousing. (Kimball, pp. 81, 165; Kimball Report, p. 8; Bay, pp. 347-350).

65. Mr. Bay acknowledged that he usually refers to Dr. Kimball's book on data warehousing in referring to slowly changing dimensions. (Bay, p. 349).

66. Dr. Kimball also confirmed that, while both Otis and eScholar use a form of Type 2 slowly changing dimensions, eScholar's Type 2 method is different from Otis' because eScholar only creates a new record once per year, whereas Otis' product updates records continuously. (Kimball, pp. 78-82; Kimball Report, pp. 11-12).

67. In addition, slowly changing dimensions technology is not contained in the data model, and can only be determined with certainty by examining the ETL, which implements that procedure. (Hubel, pp. 35, 136; Kimball Report, pp. 9-11, Kimball, p. 79). Mr. Hubel could not determine what type of slowly changing dimensions eScholar uses just from looking at eScholar's data models, but would need to look at the load plans, which is part of the ETL. (Hubel, pp. 136, 140, 249).

68. eScholar did not copyright its ETL or load plans pertaining to any of its data models. (Colvin, p. 119).

eScholar did not invent the technique of storing disparate data in a single table

69. Combining disparate data into a single data structure is a common theme in database design, both within the K-12 industry and generally. (Kimball Report, p. 14; Kimball, pp. 95-97).

70. Mr. Hubel, Plaintiff's expert, has seen dimensional data models which store disparate data in a single table before this litigation. (Hubel, p. 175).

The Reseller Agreement

71. Plaintiff and Defendant entered into a Reseller Agreement on or about October 2, 2001, wherein Otis agreed to resell Plaintiff's product.

72. However, it is undisputed that Otis never made any resales of Plaintiff's product which would trigger the royalties due under section 2.17 of the Reseller Agreement and the pricing schedule referenced and attached thereto. (Hadaway, p. 55).

Dated: February 25, 2005

Respectfully submitted,

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